Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1.- 11. (Cancel)

12. (Currently amended) A method of treating, preventing, or ameliorating an immune system disease or disorder, comprising administering to an animal in which such treatment, prevention, or amelioration is desired, a [[BLyS]]BLSP binding polypeptide in an amount effective to treat, prevent, or ameliorate the immune system disease or disorder, wherein the BLSP binding polypeptide comprises an amino acid sequence selected from the group consisting of:

(1) Asp-Xaa-Leu-Thr (SEQ ID NO:446), wherein Xaa is Pro, Ser, Thr, Phe, Leu, Tyr, Cys, or Ala;

(2) X_1–X_2–X_3–Cys–X_5–Phe–X_7–Trp–Glu–Cys–X_{11}–X_{12}–X_{13} (SEQ ID NO:1), wherein

X_1 is Ala, Asn, Lys, or Ser;

X_2 is Ala, Glu, Met, Ser, or Val;

X_3 is Ala, Asn, Lys, or Pro;

X_5 is Phe, Trp, or Tyr;

X_7 is Pro or Tyr;

X_{11} is Ala, Gln, His, Phe, or Val;

X_{12} is Asn, Gln, Gly, His, Ser, or Val; and

X_{13} is Ala, Asn, Gly, Ile, Pro, or Ser;

(3) X_1–X_2–X_3–Cys–X_5–X_6–X_7–X_8–X_9–X_{10}–Cys–X_{12}–X_{13}–X_{14} (SEQ ID NO:2), wherein

X_1 is Ala, Asp, Gln, Glu, Gly, His, Ile, Leu, Lys, Met, Phe, Pro, Ser, Thr, Trp, Tyr, Val, or is absent;

X_2 is Ala, Asn, Asp, Gln, Gly, His, Ile, Leu, Lys, Met, Phe, Pro, Ser, Thr, Trp, Tyr, or Val;

X_3 is Ala, Arg, Asn, Asp, Gln, Glu, Gly, His, Ile, Leu, Lys, Met, Phe, Pro, Ser, Trp, Tyr, or Val;

X_5 is Asp, Ile, Leu, or Tyr;

X_6 is Arg, Asp, Glu, His, Ile, Leu, Lys, Phe, Pro, Tyr, or Val;

X_7 is His, Leu, Lys, or Phe;

X_8 is Leu, Pro, or Thr;

X_9 is Arg, Asn, Gly, His, Ile, Lys, Met, or Trp;

X_{10} is Ala, Gln, Glu, Gly, His, Ile, Leu, Met, Phe, Ser, Trp, Tyr, or Val;

X_{12} is Asp, Gln, Glu, Gly, Ile, Leu, Lys, Phe, Ser, Trp, Tyr, or Val;

X_{13} is Ala, Arg, Asn, Asp, Gln, Glu, Gly, His, Leu, Lys, Met, Phe, Pro, Ser, Thr, Trp, Tyr, or Val; and

X_{14} is Ala, Arg, Asn, Asp, Gln, Glu, Gly, His, Ile, Leu, Lys, Phe, Pro, Trp, Tyr, Val, or is absent;

(4) X_1–X_2–X_3–Cys–X_5–X_6–X_7–X_8–X_9–X_{10}–X_{11}–Cys–X_{13}–X_{14}–X_{15} (SEQ ID NO:3), wherein

X_1 is Ala, Arg, Asn, Asp, Leu, Lys, Phe, Pro, Ser, or Thr;

X_2 is Asn, Asp, Gln, His, Ile, Lys, Pro, Thr, or Trp;

X_3 is Ala, Arg, Asn, Gln, Glu, His, Phe, Pro, or Thr;

X_5 is Asn, Asp, Pro, Ser, or Thr;

X_6 is Arg, Asp, Ile, Leu, Met, Pro, or Val;

X_7 is Ala, Ile, Leu , Pro, Thr, or Val;

X_8 is Asn, His, Ile, Leu, Lys, Phe, or Thr;

X_9 is Asn, Glu, Gly, His, Leu, Lys, Met, Pro, or Thr;

X_{10} is Arg, Asn, Asp, Gln, Glu, Gly, Ile, Lys, Met, Pro, Ser, or Trp;

X_{11} is Arg, Glu, Gly, Lys, Phe, Ser, Trp, or Tyr;

X_{13} is Gln, Glu, Ile, Leu, Phe, Pro, Ser, Tyr, or Val;

X_{14} is Asn, Gly, Ile, Phe, Pro, Thr, Trp, or Tyr; and

X_{15} is Asn, Asp, Glu, Leu, Lys, Met, Pro, or Thr;

(5) X_1–X_2–X_3–Cys–X_5–X_6–X_7–X_8–X_9–X_{10}–X_{11}– X_{12}–Cys–X_{14}–X_{15}–X_{16} (SEQ ID NO:4),

wherein

X_1 is Asn, Asp, His, Leu, Phe, Pro, Ser, Tyr, or is absent;

X_2 is Arg, Asn, Asp, His, Phe, Ser, or Trp;

X_3 is Asn, Asp, Leu, Pro, Ser, or Val;

X_5 is Asp, Gln, His, Ile, Leu, Lys, Met, Phe, or Thr;

X_6 is His, Ile, Leu, Met, Phe, Pro, Trp, or Tyr;

X_7 is Asp, His, Leu, or Ser;

X_8 is Ala, Arg, Asp, Glu, Leu, Phe, Pro, or Thr;

X_9 is Ala, Arg, Asn, or Leu;

X_{10} is Ile, Leu, Met, Pro, Ser, or Thr;

X_{11} is Ala, Arg, Asn, Gly, His, Lys, Ser, or Tyr;

X_{12} is Ala, Arg, Asn, Gln, Leu, Met, Ser, Trp, Tyr, or Val;

X_{14} is Asp, Gly, Leu, Phe, Tyr, or Val;

X_{15} is Asn, His, Leu, Pro, or Tyr; and

X_{16} is Asn, Asp, His, Phe, Ser, or Tyr;

(6) X_1–X_2–X_3–Cys–X_5–X_6–X_7–X_8–X_9–X_{10}–X_{11}– X_{12}– X_{13}– X_{14}–Cys–X_{16}–X_{17}–X_{18} (SEQ ID NO:5),

wherein

X_1 is Arg, Asp, Gly, His, Leu, Phe, Pro, Ser, Trp, Tyr, or is absent;

X_2 is Ala, Arg, Asn, Asp, Gly, Pro, Ser, or is absent;

X_3 is Arg, Asn, Gln, Glu, Gly, Lys, Met, Pro, Trp or Val;

X_5 is Arg, Asn, Gln, Glu, His, Leu, Phe, Pro, Trp, Tyr, or Val;

X_6 is Arg, Asp, Gln, Gly, Ile, Lys, Phe, Thr, Trp or Tyr;

X_7 is Ala, Arg, Asp, Glu, Gly, Leu, Ser, or Tyr;

X_8 is Asp, Gln, Glu, Leu, Met, Phe, Pro, Ser, or Tyr;

X_9 is Asp, Leu, Pro, Thr, or Val;

X_{10} is Arg, Gln, His, Ile, Leu, Lys, Met, Phe, Thr, Trp or Tyr;

X_{11} is Ala, Arg, Asn, Gln, Glu, His, Leu, Lys, Met, or Thr;

X_{12} is Ala, Asn, Gln, Gly, Leu, Lys, Phe, Pro, Thr, Trp, or Tyr;

X_{13} is Ala, Arg, Gln, His, Lys, Met, Phe, Pro, Thr, Trp, or Tyr;

X_{14} is Arg, Gln, Glu, Gly, His, Leu, Met, Phe, Pro, Ser, Thr, Tyr, or Val;

X_{16} is Arg, Asp, Gly, His, Lys, Met, Phe, Pro, Ser, or Trp;

X_{17} is Arg, Asn, Asp, Gly, His, Phe, Pro, Ser, Trp or Tyr; and

X_{18} is Ala, Arg, Asn, Asp, His, Leu, Phe, or Trp;

(7) X_1–X_2–X_3–X_4–X_5–X_6–X_7–X_8–X_9–X_{10}–X_{11}–X_{12} (SEQ ID NO:6),

wherein

X_1 is Ala, Arg, Gly, His, Leu, Lys, Met, Phe, Trp, Tyr, or Val;

X_2 is Ala, Arg, Gln, His, Ile, Leu, Phe, Thr, Trp, or Tyr;

X_3 is Ala, Asp, Lys, Phe, Thr, Trp or Tyr;

X_4 is Arg, Asp, Gln, Lys, Met, Phe, Pro, Ser, Tyr, or Val;

X_5 is Asp, Leu, Lys, Phe, Pro, Ser, or Val;

X_6 is His, Ile, Leu, Pro, Ser, or Thr;

X_7 is Arg, Gly, His, Leu, Lys, Met, or Thr;

X_8 is Ala, Arg, Asn, Ile, Leu, Lys, Met, or Thr;

X_9 is Ala, Asn, Arg, Asp, Glu, Gly, His, Leu, Met, Ser, Trp, Tyr, or Val;

X_{10} is Ile, Leu, Phe, Ser, Thr, Trp, Tyr, or Val;

X_{11} is Ala, Arg, Gly, His, Ile, Leu, Lys, Pro, Ser, Thr, Trp, Tyr, or Val; and

X_{12} is Arg, Asp, His, Leu, Lys, Met, Phe, Pro, Ser, Trp, Tyr, or Val;

(8) X_1–X_2–X_3–X_4–X_5–X_6–X_7–X_8–X_9–X_{10}–X_{11}–X_{12}–X_{13} (SEQ ID NO:7),

wherein

X_1 is Asp, Gln, Glu, Gly, His, Lys, Met, or Trp;

X_2 is Arg, Gln, His, Ile, Leu, or Pro;

X_3 is Asp, Gly, Ile, Lys, Thr, Tyr or Val;

X_4 is Asn, Asp, Gln, Glu, Met, Pro, Ser, or Tyr;

X_5 is Asn, Asp, His, Ile, Leu, Met, Pro, Thr or Val;

X_6 is Asp, Glu, His, Leu, Lys, Pro, or Val;

X_7 is Arg, Asn, Gln, His, Ile, Leu, Met, Pro, or Thr;

X_8 is Gln, Gly, His, Leu, Met, Ser, or Thr;

X_9 is Asn, Gln, Gly, His, Leu, Lys, Ser, or Thr;

X_{10} is Ala, Gly, Ile, Leu, Lys, Met, or Phe;

X_{11} is Ala, Glu, His, Ile, Leu, Met, Ser, Thr, Trp, Tyr, or Val;

X_{12} is Arg, Gln, Glu, Gly, His, Ile, Lys, Tyr, or Val; and

X_{13} is Arg, Asn, Glu, His, Ile, Ser, Thr, Trp, or Val;

(9) Cys–X_2–Phe–X_4–Trp–Glu–Cys (SEQ ID NO:8),

wherein

X_2 is Phe, Trp, or Tyr; and

X_4 is Pro or Tyr;

(10) Cys–X_2–X_3–X_4–X_5–X_6–X_7–Cys (SEQ ID NO:9),

wherein

X_2 is Asp, Ile, Leu, or Tyr;

X_3 is Arg, Asp, Glu, His, Ile, Leu, Lys, Phe, Pro, Tyr, or Val;

X_4 is His, Leu, Lys, or Phe;

X_5 is Leu, Pro, or Thr;

X_6 is Arg, Asn, Gly, His, Ile, Lys, Met, or Trp; and

X_7 is Ala, Asn, Gln, Glu, Gly, His, Ile, Leu, Met, Phe, Ser, Trp, Tyr, or Val;

(11) Cys–X_2–X_3–X_4–X_5–X_6–X_7–X_8–Cys (SEQ ID NO:10),

wherein

X_2 is Asn, Asp, Pro, Ser, or Thr;

X_3 is Arg, Asp, Ile, Leu, Met, Pro, or Val;

X_4 is Ala, Ile, Leu , Pro, Thr, or Val;

X_5 is Asn, His, Ile, Leu, Lys, Phe, or Thr;

X_6 is Asn, Glu, Gly, His, Leu, Lys, Met, Pro, or Thr;

X_7 is Arg, Asn, Asp, Gln, Glu, Gly, Ile, Lys, Met, Pro, Ser, or Trp; and

X_8 is Arg, Glu, Gly, Lys, Phe, Ser, Trp, or Tyr;

(12) Cys–X_2–X_3–X_4–X_5–X_6–X_7–X_8– X_9–Cys (SEQ ID NO:11),

wherein

X_2 is Asp, Gln, His, Ile, Leu, Lys, Met, Phe, or Thr;

X_3 is His, Ile, Leu, Met, Phe, Pro, Trp, or Tyr;

X_4 is Asp, His, Leu, or Ser;

X_5 is Ala, Arg, Asp, Glu, Leu, Phe, Pro, or Thr;

X_6 is Ala, Arg, Asn, or Leu;

X_7 is Ile, Leu, Met, Pro, Ser, or Thr;

X_8 is Ala, Arg, Asn, Gly, His, Lys, Ser, or Tyr; and

X_9 is Ala, Arg, Asn, Gln, Leu, Met, Ser, Trp, Tyr, or Val;

(13) Cys–X_2–X_3–X_4–X_5–X_6–X_7–X_8– X_9– X_{10}– X_{11}–Cys (SEQ ID NO:12),

wherein

X_2 is Arg, Asn, Gln, Glu, His, Leu, Phe, Pro, Trp, Tyr, or Val;

X_3 is Arg, Asp, Gln, Gly, Ile, Lys, Phe, Thr, Trp or Tyr;

X_4 is Ala, Arg, Asp, Glu, Gly, Leu, Ser, or Tyr;

X_5 is Asp, Gln, Glu, Leu, Met, Phe, Pro, Ser, or Tyr;

X_6 is Asp, Leu, Pro, Thr, or Val;

X_7 is Arg, Gln, His, Ile, Leu, Lys, Met, Phe, Thr, Trp or Tyr;

X_8 is Ala, Arg, Asn, Gln, Glu, His, Leu, Lys, Met, or Thr;

X_9 is Ala, Asn, Gln, Gly, Leu, Lys, Phe, Pro, Thr, Trp, or Tyr;

X_{10} is Ala, Arg, Gln, His, Lys, Met, Phe, Pro, Thr, Trp, or Tyr; and

X_{11} is Arg, Gln, Glu, Gly, His, Leu, Met, Phe, Pro, Ser, Thr, Tyr, or Val;

(14) Ala–X_2–X_3–X_4–Asp–X_6–Leu–Thr–X_9–Leu–X_{11}–X_{12}–X_{13}–X_{14} (SEQ ID NO:447),

wherein

X_2 is Asn, Ser, Tyr, Asp, Phe, Ile, Gln, His, Pro, Lys, Leu, Met, Thr, Val, Glu, Ala, Gly, Cys, or Trp;

X_3 is Trp, Glu, Lys, Cys, Leu, Ala, Arg, Gly, or Ser;

X_4 is Tyr, Phe, Glu, Cys, Asn;

X_6 is Pro, Ser, Thr, Phe, Leu, Tyr, Cys, or Ala;

X_9 is Lys, Asn, Gln, Gly, or Arg;

X_{11} is Trp, Ser, Thr, Arg, Cys, Tyr, or Lys;

X_{12} is Leu, Phe, Val, Ile, or His;

X_{13} is Pro, Leu, His, Ser, Arg, Asn, Gln, Thr, Val, Ala, Cys, Ile, Phe, or Tyr; and

X_{14} is Asp, Glu, Asn, Val, His, Gln, Arg, Gly, Ser, Tyr, Ala, Cys, Lys, Ile, Thr or Leu; and

(15) X_1–X_2–Asp–X_4–Leu–Thr–X_7–Leu–X_9–X_{10} (SEQ ID NO:448),

wherein

X_1 is Trp, Glu, Lys, Cys, Leu, Ala, Arg, Gly, or Ser;

X_2 is Tyr, Phe, Glu, Cys, Asn;

X_4 is Pro, Ser, Thr, Phe, Leu, Tyr, Cys, or Ala;

X_7 is Lys, Asn, Gln, Gly, or Arg;

X_9 is Trp, Ser, Thr, Arg, Cys, Tyr, or Lys; and

X_{10} is Leu, Phe, Val, Ile, or His.

13. (Original) The method of claim 12, wherein the immune system disease or disorder is an autoimmune disease or disorder.

14. (Withdrawn) The method of claim 12, wherein the immune system disease or disorder is an immunodeficiency.

15. (Original) The method of claim 13, wherein the autoimmune disease or disorder is lupus.

16. (Withdrawn) The method of claim 12, wherein the immune system disease or disorder is glomerular nephritis, rheumatoid arthritis, multiple sclerosis, hypogammaglobulinemia, hypergammaglobulinemia, or graft vs. host disease.

17.- 30. (Cancel)

31. (Currently amended) ~~A method of inhibiting or reducing activation of B cells, comprising contacting an effective amount of BLyS binding polypeptide with BLyS,~~ The method of claim 12, wherein the effective amount of [[BLyS]]BLSP binding polypeptide inhibits or reduces [[BLyS]]BLSP mediated B cell activation.

32. (Currently amended) ~~A method of inhibiting or reducing activation of B cells, comprising administering to an animal in which such inhibition or reduction is desired, a BLyS binding polypeptide in an amount effective to~~ The method of claim 12, wherein the effective amount of BLSP binding polypeptide inhibits or reduces B cell activation.

33.- 69. (Cancel)

70. (Currently amended) The method of claim 12~~according to claim 69~~, wherein the BLSP[[BLyS]] binding polypeptide comprises an amino acid sequence selected from the group consisting of SEQ ID NOs: 20-168 and 186-435, as depicted in Tables 1-8 and 13.

71. (Currently amended) The method of claim 12~~according to claim 69~~, wherein the BLSP[[BLyS]] binding polypeptide comprises an amino acid sequence selected from the group consisting of:
Ala-Gly-Lys-Glu-Pro-Cys-Tyr-Phe-Tyr-Trp-Glu-Cys-Ala-Val-Ser-Gly (SEQ ID NO:450);
Ala-Gly-Val-Pro-Phe-Cys-Asp-Leu-Leu-Thr-Lys-His-Cys-Phe-Glu-Ala-Gly (SEQ ID NO:451);

Gly-Ser-Ser-Arg-Leu-Cys-His-Met-Asp-Glu-Leu-Thr-His-Val-Cys-Val-His-Phe-Ala-Pro (SEQ ID NO:452);
Gly-Asp-Gly-Gly-Asn-Cys-Tyr-Thr-Asp-Ser-Leu-Thr-Lys-Leu-His-Phe-Cys-Met-Gly-Asp-Glu (SEQ ID NO:453);
Gly-Tyr-Asp-Val-Leu-Thr-Lys-Leu-Tyr-Phe-Val-Pro-Gly-Gly (SEQ ID NO:454);
Trp-Thr-Asp-Ser-Leu-Thr-Gly-Leu-Trp-Phe-Pro-Asp-Gly-Gly (SEQ ID NO:455);
Ala-Asn-Trp-Tyr-Asp-Pro-Leu-Thr-Lys-Leu-Trp-Leu-Pro-Asp (SEQ ID NO:186);
Trp-Tyr-Asp-Pro-Leu-Thr-Lys-Leu-Trp-Leu-Pro-Asp (SEQ ID NO:456);
Trp-Tyr-Asp-Pro-Leu-Thr-Lys-Leu-Trp-Leu (SEQ ID NO:457);
Ala-Asn-Trp-Tyr-Asp-Pro-Leu-Thr-Lys-Leu-Trp-Leu-Pro-Val (SEQ ID NO:189);
Ala-Asn-Trp-Phe-Asp-Pro-Leu-Thr-Lys-Leu-Trp-Leu-Pro-Asp (SEQ ID NO:309);
Ala-Asn-Trp-Tyr-Asp-Pro-Leu-Thr-Lys-Leu-Ser-Leu-Pro-Asp (SEQ ID NO:458);
Ala-Asn-Trp-Tyr-Asp-Pro-Leu-Thr-Lys-Leu-Trp-Phe-Pro-Asp (SEQ ID NO:353); and
Ala-Asn-Trp-Tyr-Asp-Ser-Leu-Thr-Lys-Leu-Trp-Leu-Pro-Asp (SEQ ID NO:327).

72. (New) The method of claim 12, wherein the BLSP binding polypeptide is fused to a heterologous polypeptide.

73. (New) The method of claim 72, wherein the BLSP binding polypeptide is fused to an Immunoglobulin Fc.

74. (New) The method of claim 72, wherein the BLSP binding polypeptide is fused to human serum albumin (HSA).

75. (New) The method of claim 12, wherein the BLSP binding polypeptide is about 6 to less than about 60 amino acid residues in length.

76. (New) The method of claim 75, wherein the BLSP binding polypeptide is fused to a heterologous polypeptide.

77. (New) The method of claim 75, wherein the BLSP binding polypeptide is about 6 to less than about 20 amino acid residues in length.

78. (New) The method of claim 12, wherein the BLSP binding polypeptide interferes with the interaction between BLSP and a BLSP receptor.

79. (New) The method of claim 72, wherein the BLSP binding polypeptide interferes with the interaction between BLSP and a BLSP receptor.

80. (New) The method of claim 12, wherein the subject is human.

81. (New) The method of claim 12, wherein the amount is effective to inhibit or reduce immunoglobulin production.

82. (New) The method of claim 12, wherein the amount is effective to inhibit or reduce B cell proliferation or activation.

83. (New) The method of claim 12, wherein the BLSP binding polypeptide comprises SEQ ID NO:446.

84. (New) The method of claim 83, wherein Xaa of SEQ ID NO:446 is Pro.

85. (New) The method of claim 83, wherein the BLSP binding polypeptide comprises SEQ ID NO:448.

86. (New) A method of treating, preventing, or ameliorating lupus, comprising administering to an animal in which such treatment, prevention, or amelioration is desired, a BLSP binding polypeptide in an amount effective to treat, prevent, or ameliorate lupus, wherein the BLSP binding polypeptide comprises Asp-Xaa-Leu-Thr (SEQ ID NO:446), wherein Xaa is Pro, Ser, Thr, Phe, Leu, Tyr, Cys, or Ala.

87. (New) The method of claim 86, wherein Xaa of SEQ ID NO:446 is Pro.

88. (New) The method of claim 86, wherein the BLSP binding polypeptide comprises SEQ ID NO:448.

89. (New) The method of claim 86, wherein the subject is human.